

IN THE CLAIMS:

Please cancel claims 2 and 13 without prejudice.

Please amend claims 1, 3-12, 14, and 17-22, and add new claims 23 and 24 as follows:

1. (Currently Amended) A voltage-controlled oscillator[[,]] comprising:

an oscillating circuit; and

an active circuit,

wherein the oscillating circuit ~~including~~ includes an inductive circuit and a capacitive circuit ~~sharing~~ connected to a first main terminal with a first main terminal voltage and a second main terminal with a second main terminal voltage to which the active circuit is connected to maintain an oscillatory transfer of electrical energy between the inductive circuit and the capacitive circuit at a frequency dependent on the capacitance of the capacitive circuit, the capacitance varying as a function of ~~an adjustable potential difference formed by a difference between a biasing voltage and~~ an adjustable control voltage, the capacitive circuit includes including:

~~one or more~~ at least two circuit branches connected in parallel, ~~where~~ each of the circuit ~~branch comprises~~ branches comprising a first half, a central terminal, and a second half, the first half and the second half each ~~comprises~~ comprising at least one capacitive element of variable capacitance, the at least one capacitive element of the first half being coupled in series with the at least one capacitive element of the second half connected in series between the first main terminal and the second main terminal and distributed ~~over the first half and the second half~~ so that each of the first half and the second half is mutually symmetrical with respect to ~~[[a]]~~ the central terminal ~~on which the adjustable control voltage is applied;~~

wherein the adjustable control voltage is applied to the central terminal of each of the circuit branches.

each of the circuit branches is biased by a different biasing voltage,

the first half of each circuit branch includes ~~an outer most~~ a first outermost terminal with a first voltage proportional to the first main terminal voltage shifted by the biasing voltage of that circuit branch, and~~[[;]]~~

wherein the second half of each circuit branch includes ~~an outer-most~~ a second outermost terminal with a second voltage proportional to the second main terminal voltage shifted by the biasing voltage of that circuit branch.

2. (Canceled)
3. (Currently Amended) The voltage-controlled oscillator according to claim 1, wherein the ~~one or more~~ at least two circuit branches includes at least three circuit branches.
4. (Currently Amended) The voltage-controlled oscillator according to claim 1, wherein each biasing voltage ~~in each of~~ for the one or more circuit branches is configured to be a voltage value which taken together as a group of biasing voltages forms a succession of biasing voltage values.
5. (Currently Amended) The voltage-controlled oscillator according to claim 1, wherein each of the ~~one or more~~ circuit branches includes a different number of capacitive elements.
6. (Currently Amended) The voltage-controlled oscillator according to claim 1, wherein at least one of the capacitive elements is a MOS (~~Metal-Oxide-Semiconductor~~) ~~type varactors~~ varactor.
7. (Currently Amended) The voltage-controlled oscillator according to claim 5, wherein at least one of the capacitive elements is a MOS (~~Metal-Oxide-Semiconductor~~) ~~type varactors~~ varactor.
8. (Currently Amended) The voltage-controlled oscillator according to claim 2, wherein each biasing voltage in each of the ~~one or more~~ circuit branches is applied via a resistor.
9. (Currently Amended) The voltage-controlled oscillator according to claim 7, wherein each biasing voltage in each of the ~~one or more~~ circuit branches is applied via a resistor.

10. (Currently Amended) The voltage-controlled oscillator according to claim 1, wherein at least one ~~outer-most~~ first outermost terminal of at least one of the ~~one or more~~ circuit branches includes at least one decoupling capacitor.

11. (Currently Amended) The voltage-controlled oscillator according to claim 9, wherein at least one ~~outer-most~~ outermost terminal of at least one of the ~~one or more~~ circuit branches includes at least one decoupling capacitor.

12. (Currently Amended) A voltage-controlled oscillator, ~~with~~ including an active circuit and an oscillating circuit, the oscillating circuit including a capacitive circuit with a capacitance varying as a function of ~~an adjustable potential difference formed by a difference between a~~ biasing voltage and an adjustable control voltage, the capacitive circuit including:

at least ~~one~~ two circuit ~~branch~~ branches connected in parallel, ~~where~~ each of the circuit ~~branch comprises~~ branches comprising a first half, a central terminal, and a second half, the first half and the second half each ~~comprises~~ comprising an outermost terminal and at least one capacitive element of variable capacitance, the at least one capacitive element of the first half being coupled in series with the at least one capacitive element of the second half connected in series between a first main terminal with a first main terminal voltage and a second main terminal with a second main terminal voltage,

wherein the adjustable control voltage is applied to the central terminal of each of the circuit branches,

each of the circuit branches is biased by a different biasing voltage,

the first half of each circuit branch includes ~~and distributed over the two halves so that each of the halves includes an outer-most~~ a first outermost terminal with a first voltage which is proportional to ~~one of:~~ the first main terminal voltage shifted by $[[a]]$ the biasing voltage of that circuit branch, and

the second half of each circuit branch includes a second outermost terminal with a second voltage proportional to the second main terminal voltage shifted by $[[a]]$ the biasing voltage of that circuit branch.

13. (Canceled)

14. (Currently Amended) The voltage-controlled oscillator according to claim 12, wherein ~~the~~ at least ~~one~~ two circuit ~~branch~~ branches includes at least three circuit branches.
15. (Original) The voltage-controlled oscillator according to claim 12, wherein each biasing voltage in each circuit branch is configured to be a voltage value which taken together as a group of biasing voltages forms a succession of biasing voltage values.
16. (Original) The voltage-controlled oscillator according to claim 12, wherein one circuit branch includes a different number of capacitive elements as compared with another circuit branch.
17. (Currently Amended) The voltage-controlled oscillator according to claim 12, wherein at least one of the capacitive elements is a MOS (~~Metal-Oxide-Semiconductor~~) ~~type varactors~~ varactor.
18. (Currently Amended) The voltage-controlled oscillator according to claim 17, wherein at least one of the capacitive elements is a MOS (~~Metal-Oxide-Semiconductor~~) ~~type varactors~~ varactor.
19. (Currently Amended) The voltage-controlled oscillator according to claim 12, wherein ~~at least one of the biasing voltage in~~ of at least one of the circuit ~~branch~~ branches is applied via a resistor.
20. (Currently Amended) The voltage-controlled oscillator according to claim ~~18~~ 12, wherein each biasing voltage in each circuit branch is applied via a resistor.
21. (Currently Amended) The voltage-controlled oscillator according to claim 12, wherein at least one ~~outer most~~ first outermost terminal of at least one circuit branch includes at least one decoupling capacitor.

22. (Currently Amended) The voltage-controlled oscillator according to claim 18, wherein at least one ~~outer most~~ first outermost terminal of at least one circuit branch includes at least one decoupling capacitor.

23. (New) A voltage-controlled oscillator comprising:
an oscillating circuit; and
an active circuit,

wherein the oscillating circuit includes an inductive circuit that is connected in parallel with a capacitive circuit between a first main terminal with a first main terminal voltage and a second main terminal with a second main terminal voltage, the active circuit being connected to the first and second main terminals to maintain an oscillatory transfer of electrical energy between the inductive circuit and the capacitive circuit at a frequency dependent on the capacitance of the capacitive circuit, the capacitance of the capacitive circuit varying as a function of an adjustable control voltage, the capacitive circuit including:

at least one circuit branch comprising a first half, a central terminal that receives the adjustable control voltage, and a second half, the first half and the second half each comprising at least one capacitive element of variable capacitance, the at least one capacitive element of the first half being coupled in series with the at least one capacitive element of the second half between the first main terminal and the second main terminal,

wherein the first half of the at least one circuit branch includes a first outermost terminal with a first voltage proportional to the first main terminal voltage shifted by a biasing voltage, and

the second half of the at least one circuit branch includes a second outermost terminal with a second voltage proportional to the second main terminal voltage shifted by the biasing voltage.

24. (New) The voltage-controlled oscillator according to claim 23,
wherein at least one circuit branch includes at least two circuit branches connected in parallel between the first main terminal and the second main terminal,
the adjustable control voltage is applied to the central terminal of each of the circuit branches, and
each of the circuit branches is biased by a different biasing voltage.